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WATER PUMP DEVICE

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INVENTOR(s): MIYAKE NOBUHIKO
 IWAKIRI SHIGERU
APPLICANT(s): NSK LTD
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ABSTRACT

PROBLEM TO BE SOLVED: To lengthen a life of a **bearing** by almost certainly preventing an intrusion of cooling water and steam into the **bearing** and simultaneously sealing grease in the **bearing** .

SOLUTION: A **seal** device has an outer ring side **seal** ring adjacent to a cavity relative to an impeller and fixed to an outer ring; and a **shaft** side **seal** ring fixed to a **shaft** . The **shaft** side **seal** ring has a cylindrical part fitted/fixed to the **shaft** and an outer diameter direction part extending to an outer periphery, direction therefrom. The outer ring side **seal** ring has a reinforcement ring; a main **lip** ; a first sub- **lip** ; and a second sub- **lip** . The main **lip** extends from the reinforcement ring and is contacted with the **shaft** or an outer periphery surface of the cylindrical part of the **shaft** side **seal** ring fitted/fixed to the **shaft** . the first sub- **lip** extends from the reinforcement ring, is positioned at a rolling body side as compared with the main **lip** and is contacted with the **shaft** or the outer periphery surface of the cylindrical part of the **shaft** side **seal** ring fitted/fixed to the **shaft** . The second sub- **lip** extends from the reinforcement ring, is positioned at an opposite side of the first sub- **lip** against the main **lip** and is contacted with the outer diameter direction part of the **shaft** side **seal** ring to form a closed space relative to the main **lip** .

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